Job Analysis Guide

Contacts:

DOP Assessment Services	360.664.6260
DOP Client and Employee Relations Services	360 664.6322

HR
WSD **Personnel**

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Introduction

Job analysis is the process of gathering, analyzing, and synthesizing information about a position in order to identify the position's tasks, functions, and roles, as well as the competencies required to perform the work of the position.

The key purpose in conducting a job analysis is to describe a job as it is actually performed and understand the job well enough to *reliably* and *accurately* define worker requirements. Done well, job analysis provides the most relevant position-specific information, which may then be used in a variety of human resource functions, including recruitment, assessment, selection, performance management, and more.

Job analysis helps to create a shared view of a job, fostering greater acceptance among interested parties as to the job's actual description. It also provides *documentation* that allows the employer to chronicle and defend processes and decisions, should they be challenged.

Valid job analysis

A valid job analysis:

- Describes the key work activities – what, why, and how work is done.

- Identifies the essential functions of the position.

- Describes the competencies (knowledge, skills, abilities, and behaviors) needed to perform the key work activities, and documents these in terms of objective, observable, and measurable elements.

- Describes job readiness factors as they relate to the context of the work – the environment, mental and physical demands, willingness and interest required, etc.

- Imparts the relative importance of the position's components (work activities, competencies, etc.).

- Notes the sources of information, as well as the date of the analysis.

To begin:

Collect information currently available regarding the position or job in question. This may include the position description, recruitment information, and current exams.

Identify at least one Subject Matter Specialist (SMS); if possible, collect a group of SMSs. A SMS could be a top performer in the job, the supervisor or hiring manager, or an employee who worked in the job previously and was promoted to a higher level job in the same series or category. A good SMS has direct knowledge of the job and knows what is required to succeed in the job. Direct involvement of such a person is important to validating the product.

If necessary, briefly explain job analysis and the role of the SMSs in the process (for more information, see Job Analysis and Subject Matter Specialist Role). Remind the SMSs that any information used to create a selection procedure is confidential and

should not be discussed with others (see SMS Background Information and Confidentiality Statement). It may also be beneficial to pass out a short questionnaire as a prelude to the job analysis meeting (for sample questions, see Quick Reference - Job Analysis).

Tips for conducting a productive job analysis meeting:

- Build rapport with SMSs by conversing with them and making them feel welcome and comfortable.

- Explain the job analysis process and its purpose, and answer questions.

- Be aware of the SMSs' time. Encourage creativity and thinking, but refocus them if they digress.

- Gently remind SMSs to think in terms of the level of knowledge or skill a qualified candidate, not an expert in the job, might possess.

- Rephrase and clarify what the they say to ensure understanding. Write statements on an easel or white board where everyone can see – this may spark new ideas.

- Facilitate the group so that everyone has opportunity to provide input.

- Thank them for their time and input.

Job analysis process, step by step

Following are the recommended steps in a valid job analysis. Steps 1 – 5 represent the process of identifying job-related information. Steps 6 – 7 represent the planning and use of the job-related information. This process may be used in concert with the Job Analysis Record Form included at the end of this guide. See Quick Reference - Job Analysis on page 11 for additional information.

Step 1

Identify the key work activities performed in order to achieve particular outcomes, products, or meet position responsibilities. A good work activity statement should be specific about three things: what, how, and why. The "what" should be a clear action verb that conveys the act or work behavior. The "how" conveys the interaction with data, people, or things. The "why" states the purpose or end result. Key work activities should be as specific and measurable as possible. (For more information, see Useful Descriptors for Writing Work Activity Statements in the forms section of this guide.)

Examples of good work activity statements:

- *Refer public to appropriate agency contacts or outside agencies for answers to questions.*

- *Analyze collected job analysis material to determine the most appropriate selection method.*

- *Compose, proofread, and edit correspondence explaining departmental decisions to customers.*

- *Operate two-way radios, pagers, telephones, and cellular phones to communicate information to field personnel.*

- *Prepare written summaries of reports, technical publications, or other written materials for review by supervisors.*

Step 2

Rank the key work activities in order of importance. The order chosen should be defensible and will affect the relative importance of competencies identified as crucial to success in the position. Consider the following four factors when ranking the work activities: frequency, time spent, difficulty level, and criticality/consequence of error. It may also be helpful to think of which work activities would be focused on during a performance evaluation and would require the most attention and improvement if they were being done poorly.

Step 3

Identify the essential functions of the position. Identification of essential functions is key to the reasonable accommodation process and compliance with the Americans with Disabilities Act (ADA). The following criteria should be used when identifying essential functions:

- Work activities that are the primary reasons for which the position was established, and which cannot normally be permanently transferred to another position without disruption in the flow or process of work.

- Work activities that are so critical they cannot be eliminated from the position description without significantly changing the position's role and contribution to the organization.

- Work activities, regardless of the frequency of performance, which cannot be assumed by another employee, either due to undue hardship to the employer or unavailability of alternate incumbent, yet still must be accomplished.

- Work activities which, if eliminated, would so significantly impact the position description that it would require a change in classification and/or salary range.

- Special requirements, conditions of employment, and/or working conditions that are essential to the position.

Remember *how* an essential function is performed is open to reasonable accommodation. Also, if there is an incumbent in the position being analyzed, that incumbent must be involved in the identification of essential functions.

Step 4

Identify the key competencies (knowledge, skills, abilities, and behaviors) required to successfully perform the most important (three or four is recommended) work activities. The relationship between the work activities and the competencies should be reasonable and clearly documented (on the Job Analysis Record form, this may be accomplished by writing the line number of the work activity from page 1 next to the competencies needed on page 2). Describe the competencies in a way that they may be used to assess candidates in the selection process and/or during a layoff. This information may also be key in defending human resource decisions in the event of a challenge.

To identify additional competencies, have the SMSs think of critical incidents – events or circumstances encountered on the job – and describe the actions taken by an employee, as well as the observed consequences of those actions. Ask the SMSs to analyze these incidents to determine competencies that make the difference between handling the situations well and handling them poorly. Document the competencies and keep a record of the process used to identify them.

Examples of competencies:

- *Knowledge of basic accounting principles and procedures.*
- *Ability to read, understand, and follow written directions.*
- *Skill in operating a forklift.*
- *Facilitation skills – ability to focus and direct group discussions.*
- *Decision-making skills – ability to weigh options and foresee consequences of decisions.*

Step 5

Identify job readiness factors as they relate to the context of the job. This includes:

- Mental and physical demands (e.g., frequently working under extreme stress, working at heights).

- Willingness issues (e.g., working with mentally ill patients/clients, working in a prison).

- Interests (e.g., frequently working alone, working with numbers 75 percent of the day).

- Environmental factors (e.g., working outdoors regardless of weather, working in a smoke-free facility).

Job readiness factors may be highlighted on recruitment announcements, used as screens, and/or worked into the assessment process. The point at which job readiness factors are used to screen candidates in or out is important to consider. A factor that is a basic requirement of a position and has no room for reasonable accommodation or negotiation (e.g., working in a prison) is something that may be used to screen candidates up front. Factors that do have room for reasonable accommodation or negotiation (certain physical demands), or are items related to "best fit" in a position (e.g., frequently working alone) are better included in the assessment process and/or mentioned on a recruitment announcement. Where job readiness factors are used should be logical and defensible in the event of a challenge. For the purpose of job analysis, it is good to document these factors for possible use in selection, as well as to note pertinent working conditions of the position.

Step 6a

Associate the competencies with qualifications and select the proficiency level needed. Qualifications are typically items that could be found on a resume or application, and that allow candidates to self-select their proficiency levels. Qualifications should indicate specific experiences, accomplishments, and/or credentials that are likely to reflect proficiency in the competencies identified. There may be several competencies associated with the same qualification, and vice versa.

Qualifications may be selected from those available in the e-Recruit catalog and/or developed by organizations. Those developed by organizations may be used in questionnaires to obtain position-specific information from candidates.

Step 6b

Associate the competencies with performance statements and select the proficiency level needed. Performance statements are typically behaviors observed and evaluated by someone other than the candidate. These statements should indicate measurable and observable outcomes or products of a competency. Core competencies (competencies required by all employees in an organization) should be listed in this portion of the job analysis.

Performance statements may be selected from those available in the performance management catalog and/or developed by organizations. They may be used in assessment, selection, and/or performance management.

Step 7

Plan the use of the job analysis information. Determine which competencies and/or qualifications will be used in recruitment, selection, assessment, performance management, etc. Also determine which competencies will be developed through training, which may affect compensation, which play a crucial role in workforce planning, and so on. Be sure to adhere to collective bargaining agreement language and rules regarding certification, selection, layoff, and other criteria.

Legal and professional standards for selection procedures

In an attempt to make selection procedures as equitable as possible, a number of legal and professional standards have been created and documented. Following are descriptions of two documents outlining such standards.

Uniform Guidelines on Employee Selection Procedures

In 1977, the Carter administration decided that the federal government should present a "united front" on employment testing, describing what it considered to be *Uniform Guidelines on Employee Selection Procedures*. The Equal Employment Opportunity Commission (EEOC), the Department of Labor, Department of Justice, and the Civil Service Commission each contributed to the *Uniform Guidelines*, which were produced and published in 1978. **The guidelines apply to any exam or other selection procedure used as a basis for an employment decision. This includes: hiring, promotion, demotion, referral, retention, and licensing/certification.** The fundamental principle underlying the *Uniform Guidelines* is that employer policies or practices which have an *adverse impact* on employment opportunities of any race, sex or ethnic group are *illegal* under Title VII…*unless justified by business necessity.*

This idea of "business necessity" has been translated by the courts into a deceptively simple concept: is there any evidence that relatively good performance on an employment exam relates to relatively good performance on the job? T**here must be a clear relationship between performance on the selection procedure and performance on the job.** This relationship between exam performance and job performance is often called **validity**. The bulk of the *Uniform Guidelines* talk about standards for validating selection procedures, and documenting those validation techniques.

Specific testing issues addressed by the *Uniform Guidelines* include:

- Definitions of discrimination and adverse impact.
- Various alternative processes to demonstrate the validity of an exam (validation techniques).
- Justification required to rank order exam scores vs. pass/fail concept (cut-off scores).
- Use of selection techniques which have not been validated.
- Use of validity studies conducted elsewhere to justify your own exams.
- Technical standards for validity studies (job analysis, criterion measures, etc.).

The *Uniform Guidelines* may be found online at www.uniformguidelines.com.

Principles for the Validation and Use of Personnel Selection Procedures

The psychology profession has always taken an interest in measuring human performance, and the matching of human abilities with required job skills has been of particular interest to Division 14 (the Society for Industrial and Organizational Psychology) of the American Psychological Association. In response to a need for testing standards, Division 14 developed a document called *Principles for the Validation and Use of Personnel Selection Procedures*. Its purpose is to specify principles of good practice in the choice, development, evaluation and use of personnel selection procedures.

A few of the testing issues addressed by the *Principles* include job analysis, validity generalization, and the three commonly used validation techniques:

- The **criterion-related validation** strategy uses a mathematical correlation between performance on the exam and performance on the job.

- The **content-oriented validation** strategy establishes that exam performance is a relative *sample* of job performance. Essentially, elements tested for are elements actually needed on the job. (This is the strategy most often used by DOP; job-related information is gathered from subject matter specialists, and this information is used to create screening criteria, exams, and other selection procedures.)

- The **construct-oriented validation** strategy often relies on statistical data and revolves around personality traits. Constructs are not observable behaviors, but rather characteristics such as intelligence and motivation that are inferred from observed behavior. (This strategy, often thought of as personality testing, is not popular in the public sector, and may be difficult to defend in court.)

The bottom line is that to meet professional and legal standards, an exam must be valid according to at least one of the definitions outlined above. The *Principles* may be found online at www.siop.org/_Principles/principles.pdf.

Quick Reference - Job Analysis

❑ **Step 1 - Identify work activities.**

■ What are the main duties (roles, functions) of this position? What are the major tasks (specific steps, motions, or procedures) performed in order to achieve particular outcomes, products, or position responsibilities?

■ What is the purpose of this position? Why does it exist? What does this position get paid to do?

   Tips for writing work activity statements:

   ■ Use clear <u>action verbs</u> to describe the work.

   ■ Keep the focus on <u>measurable or observable</u> interactions with people, data, or things.

   ■ Describe the <u>outcome</u> (e.g. in order to…) of the work activity.

❑ **Step 2 - Rank work activities.**

■ How frequently is this activity performed?

■ How much time is spent on this activity?

■ How severe are the consequences if this activity is performed poorly or incorrectly?

■ How difficult to perform is this activity?

■ Would this work activity be a focal point during a performance evaluation? Would this work activity require significant attention and improvement if it were being done poorly?

❑ **Step 3 - Identify essential functions.**

■ Functions that are fundamental to the position and help define the position in terms of description, classification, salary, and/or contribution to the organization – the position exists to perform that function.

■ Functions that cannot be assumed by another employee, yet must be accomplished.

■ Special requirements and/or working conditions that are essential to the position.

❑ **Step 4 - Identify competencies for most important work activities.**

■ What specific knowledge, skills or skill sets, and/or abilities are necessary to perform the critical work activities well?

■ What specific behaviors or other characteristics are necessary to perform the above work activities well?

■ Think of some critical on-the-job situations related to the work activities. What competencies make the difference between handling these situations well or poorly?

❑ **Step 5 - Identify job readiness factors.**

■ What are the working conditions (environmental factors, mental and physical demands, willingness issues) of this position? Examples: extensive travel, working outdoors, working alone, uniforms, constant deadlines.

- What specific experiences, activities, interests, education, or other factors in a person's background would indicate that a person is likely to do this job well? (Think of the best performers you have known. What in their backgrounds prepared them to perform this job so well?)

❑ Step 6a – Associate competencies with qualifications.

- Which qualifications indicate specific experiences, accomplishments, or credentials that are likely to reflect proficiency in the competencies identified?

❑ Step 6b – Associate competencies with performance statements.

- What behaviors or performance expectations should be assessed in potential candidates and/or incumbents?

❑ Step 7 – Plan use of competencies.

- Which competencies and/or qualifications should be highlighted in recruitment, assessment, certification, selection, layoff, performance management, career and workforce planning, training, compensation, and other HR functions?

Useful descriptors for writing work activity statements

The verbs below are not necessarily tied to the categories in which they have been placed. Rather, they are meant to elicit a more accurate, descriptive picture of what someone actually does. They are preferable to terms such as "works with" and "responsible for," which are generic in nature and do not provide information regarding what specifically is done or the levels of complexity and responsibility involved.

Data	People	Things
Accesses or Locates (from databases or files)	Advises, or Recommends or Suggests to	Accepts (goods, materials)
Analyzes	Aids, Assists, Participates	Carries
Checks or Verifies	Approves or Authorizes	Cleans or Sanitizes
Compares and/or Contrasts	Assigns to	Delivers
Compiles or Gathers	Asks or Requests of	Diagnoses or Troubleshoots
Computes or Tabulates	Communicates to/with	Drives
Copies or Records	Confers or Coordinates with	Handles
Corrects	Directs	Inspects
Creates (Information)	Encourages	Installs
Deletes	Explains or States to	Mails
Designs or Devises	Facilitates or Conducts	Maintains
Determines or Decides	Hires	Manipulates
Describes	Instructs or Trains	Modifies or Alters
Develops	Interviews	Monitors or Tends
Edits, Revises or Updates	Mentors	Operates, Controls
Enters or Files (data)	Negotiates	Picks up
Establishes	Notifies	Pulls and/or Pushes
Evaluates	Orders	Purchases or Orders
Forecasts	Persuades, Diverts or Sells	Sets up or Constructs
Formulates	Presents to	Sorts or Separates
Forwards, Releases, Routes or Transmits	Provides input or feedback, or Responds to	Stamps
Identifies	Reports to	Transports
Interprets or Judges	Schedules	
Investigates or Researches	Serves or Helps	
Logs	Speaks to	
Measures or Weighs	Supervises or Leads	
Organizes	Takes instructions or requests from	
Proofreads		
Prepares (Statistics, summaries)		
Prints or Runs (reports)		
Reads and absorbs		
Reconciles		
Reviews		
Submits		
Studies		
Surveys		
Synthesizes		
Writes		

Terms and definitions

- **Adverse impact**: a situation in which members of a particular race, sex, or ethnic group have a substantially lower rate of selection in hiring, promotion or other employment decisions.

- **Assessment**: any test or procedure used to measure an individual's employment or career-related qualifications or competencies.

- **Competencies**: measurable or observable knowledge, skills, abilities, and other behaviors critical to success in a key job role or function.

- **Critical incident**: a description of a job circumstance and setting, what an employee did that was effective or ineffective, the observed consequences, and whether the consequences were within or beyond the employee's control or resulted from the employee's skills, abilities, or lack thereof. (Critical incidents are tools used to gather job analysis information and are often used to assist with development of oral exams or structured interviews.)

- **Duty**: collection of tasks directed at carrying out a major goal or objective of a position.

- **Essential functions**: duties, tasks, or responsibilities required of and fundamental to a position. Essential functions tend to be primary, crucial, necessary, integral, imperative and/or indispensable.

- **Job analysis**: the process of gathering, analyzing, and synthesizing information about a position in order to identify the essential tasks, functions, roles, and competencies required to perform the work of the position, and the written documentation of the results of the analysis.

- **KSAs**: observable and measurable knowledge, skills, and abilities.

- **Knowledge**: a body of information applied directly to the performance of a task.

- **Role**: (similar to duty) a set of closely related tasks that have a common purpose within an organization.

- **Selection procedure**: any measure, combination of measures, or procedure used as a basis for any employment decision. Selection procedures include the full range of assessment techniques from traditional paper and pencil tests, experience and training ratings, performance tests, interviews, training programs, or probationary periods and physical, educational, and work experience requirements through informal or casual interviews and scored and unscored application forms.

- **Skill**: a present, observable competence to perform a learned psychomotor (physical) act.

- **SMS or SME** (Subject Matter Specialist or Subject Matter Expert): a person who is very knowledgeable about a job being analyzed. This could be an incumbent, a past incumbent or a supervisor of the job.

- **Task**: a unit of work, composed of any number of specific steps, motions, or procedures. Typically, a task is one part of a larger component of the job called a duty, responsibility, or work behavior.

- **Validity**: the degree to which actions or inferences based on test results are meaningful or supported by theory and empirical evidence.

- **Work activity:** duties and the respective tasks performed in order to achieve an objective of a position as established by management.

Job Analysis and Subject Matter Specialist Role

You were selected to participate in this group because you are an expert in this job and you understand the characteristics of high quality performance. You are one of the best incumbents (present or recent past), you supervise or lead incumbents in this job class, or you are a human resource professional with direct knowledge of this job.

Your role in the job analysis process is to share your knowledge of the position or job being analyzed. The key results of a job analysis are:

- Work activities performed by someone in the position in order to achieve particular outcomes, products, or position responsibilities. A relative weighting of the activities is also needed.

- Competencies (measurable or observable knowledge, skills, abilities, behaviors) required to successfully perform the work activities.

- Essential functions of the position.

- Job readiness factors as they relate to the context of the job. This includes mental and physical demands, environmental working conditions, and issues of willingness and interest.

During the job analysis process, ponder and share what it takes to be a great performer in the job, and *how to measure or assess those qualities*. Think in terms of the level of knowledge or skill a qualified candidate, not an expert in the job, might possess.

We also ask that you:

1. Ask questions. There is no bad question.

2. Share any thoughts or ideas you may have. We may not use each idea that is brought up, but one idea could generate another.

3. Speak up if you don't agree with the "correct" answer that is suggested. You may have thought of something others haven't, and your experiences may be different from theirs.

4. Operate by consensus. We want everyone to be comfortable with the decisions made.

5. Respect others' views and let them express their opinions. All group members were chosen for their strengths.

6. Value each other's time. Keep conversation focused on the topic at hand.

7. Don't worry if you aren't a writer or forget the correct spelling of a word. It is your job knowledge and expertise we value…writing and spelling will be checked at other stages in the process.

8. Keep confidential all material we discuss and write.

9. Attend all meetings. Your active participation will result in the best job information, which may then be used in various human resource functions.

Thank you for your participation!

Subject Matter Specialist
Background Information and Confidentiality Statement

Position being analyzed:	Date:
Your Name:	
Your job title:	Your working title (if different):
Your agency:	Work address and mail stop:
Work phone:	Work e-mail address:
Supervisor's name:	Supervisor's job title:

You were chosen to be a member of this group because you are knowledgeable about this position being analyzed. Describe your training and experience relative to this job that qualifies you to work in this group.

_____

_____

_____

_____

Security and Confidentiality Statement: I understand that the material resulting from this meeting is the property of the organization, and that the contents of the job analysis, any exam questions, answers, scoring material, etc., are all **strictly confidential and protected by copyright**. I agree to protect their security and confidentiality. I agree not to remove any of these materials or to discuss them without **explicit** approval from an authorized entity.

Signature:_____ Date:_____

We invite your voluntary answers here:

( ) Male   ( ) Female

( ) African-American / Black   ( ) Asian   ( ) Caucasian   ( ) Hispanic

( ) American Indian / Native American   ( ) Other, please specify:_____

Agency HR staff: complete as appropriate.

Participated in job analysis:		
Developed exam material:		
Reviewed exam material:		
Scored exam:		
Other:		
	Personnel Analyst:	

Position #:		Position Title:		Date:	
Subject Matter Specialists:					

Job Analysis Record Form – Key Work Activities & Essential Functions

Line #	Description of Key Work Activity	Rank	Essential function
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			

Authorizing Signature _____ Date _____

Position #:		Position Title:		Date:	
Subject Matter Specialists:					

Job Analysis Record Form – Key Competencies & Job Readiness Factors

Line #	Description of Competency	Line #	Description of Competency

Description of Job Readiness Factor (willingness, interest, physical demand)

Authorizing Signature _____ Date _____

Position #:		Position Title:		Date:	
Subject Matter Specialists:					

Job Analysis Record Form – e-Recruiting Qualifications

Brief Competency Description	e-Recruiting Qualification	Proficiency Level

Authorizing Signature _____ Date _____

Position #:		Position Title:		Date:	
Subject Matter Specialists:					

Job Analysis Record Form – Performance Management Qualifications

Brief Competency Description	Performance Management Qualification	Proficiency Level

Authorizing Signature _____ Date _____

| Position #: | | Position Title: | | | | | | Date: | |

| Subject Matter Specialists: | |

Job Analysis Record Form – Plan of Competency Use

Competency Title:	Use:	Layoff Screen	Recruit	Screen	Select/ Assess	Train	Manage Perform.	Plan Career	Plan Wkforce	Other:

Authorizing Signature _____ Date _____